

WHAT IS CLAIMED IS:

1. A customer information management system comprising:
a first acquisition block obtaining image information of a customer having purchased an item;
an attribute determination block determining a first attribute of said customer from said image information obtained;
5 a second acquisition block obtaining data of said item purchased by said customer; and
a recording block recording said data of said item obtained and said first attribute of said customer determined, said data and said first attribute being correlated with each other.
- 10 2. The customer information management system of claim 1, wherein said recording block further records a second attribute of said customer, said second attribute being correlated with said data of said item obtained, said second attribute being determined through a human perception.
- 5 3. The customer information management system of claim 1, further comprising an analysis block using said data of said item recorded and said attribute of said customer to provide a data analysis.
4. The customer information management system of claim 3, wherein said data analysis includes one of a data analysis about the attribute for each item and a data analysis about the item data for each purchaser attribute.
5. A customer information management method comprising the steps of:
obtaining image information of a customer having purchased an item;
5 determining a first attribute of said customer from said image

information obtained;

obtaining data of said item purchased by said customer; and

recording said data of said item obtained and said first attribute of said customer determined, said data and said first attribute being correlated with each other.

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6. A computer-readable recording medium having recorded therein a customer information management program causing a computer to execute the steps of:

5 obtaining image information of a customer having purchased an item;

determining a first attribute of said customer from said image information obtained;

obtaining data of said item purchased by said customer; and

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recording said data of said item obtained and said first attribute of said customer determined, said data and said first attribute being correlated with each other.

7. A customer information management system comprising:

a first image acquisition block obtaining image information of a customer entering a shop;

5 a second image acquisition block obtaining image information of a customer having purchased an item;

a first extraction block referring to said image information obtained by said first image acquisition block and said image information obtained by said second image acquisition block, to extract image information obtained exclusively by said first image acquisition block and absent from said second image acquisition block;

10 an attribute acquisition block obtaining an attribute of a customer corresponding to said image information extracted; and

15 a recording block recording information indicative of a non-purchaser and said attribute obtained, said information and said attribute being correlated with each other.

8. The customer information management system of claim 7, wherein said attribute acquisition block includes a first determination block determining on the basis of said image information extracted said attribute of said customer corresponding to said image information extracted.

9. The customer information management system of claim 7, further comprising:

an item data acquisition block obtaining data of said item purchased by said customer corresponding to said image information obtained by said second image acquisition block; and

5 a second determination block determining an attribute of said customer on the basis of said image information obtained by said second image acquisition block,

10 wherein said recording block further records information indicative of a purchaser, said data of said item obtained, and said attribute determined by said second acquisition block, said information, said data and said attribute being correlated with each other.

10. The customer information management system of claim 7, further comprising an analysis block providing a data analysis based on data recorded in said recording block.

11. The customer information management system of claim 10, wherein said data analysis includes a data analysis about an item data for each purchaser attribute and a data analysis about an attribute for each of a purchaser and a non-purchaser.

12. The customer information management system of claim 10, wherein if said recording block records data received from a plurality of shops said analysis block uses said data of said plurality of shops recorded in said recording block to provide a data analysis to develop a strategy for 5 each shop.

13. A customer information management method comprising the steps of:

obtaining image information of a customer entering a shop;

5 obtaining image information of a customer having purchased an item;

10 comparing said image information obtained in the step of obtaining said image information of said customer entering said shop and said image information obtained in the step of obtaining said image information of said customer having purchased said item, and extracting image information obtained exclusively in the step of obtaining said image information of said customer entering said shop;

15 obtaining an attribute of a customer corresponding to said image information extracted; and

for said customer corresponding said image information extracted, recording information indicative of a non-purchaser and said attribute obtained, said information and said attribute being correlated with each other.

14. A computer-readable recording medium having recorded therein a customer information management program causing a computer to execute the steps of:

obtaining image information of a customer entering a shop;

5 obtaining image information of a customer having purchased an item;

10 comparing said image information obtained in the step of obtaining said image information of said customer entering said shop and said image information obtained in the step of obtaining said image information of said customer having purchased said item, and extracting image information obtained exclusively in the step of obtaining said image information of said customer entering said shop;

15 obtaining an attribute of a customer corresponding to said image information extracted; and

for said customer corresponding to said image information extracted,

recording information indicative of a non-purchaser and said attribute obtained, said information and said attribute being correlated with each other.

15. A customer information management system comprising:
a recording block recording image information of a customer of a shop and a frequency of said customer's appearance in said shop, said image information and said frequency being correlated with each other;

5 an acquisition block obtaining image information of a customer entering said shop;
a comparison block comparing said image information recorded in said recording block and said image information obtained with each other to determine whether said image information match each other;

10 an increment block incrementing by one a frequency of appearance in said shop recorded and corresponding to said image information recorded in said recording block and matching said image information obtained; and
an addition block adding to said recording block said image information obtained, if a comparison made by said comparison block reveals that said recording block does not have image information matching said image information obtained.

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16. The customer information management system of claim 15, further comprising a determination block referring to said frequency recorded in said recording block, to determine whether said customer is a regular customer or a new customer, said determination block determining that said customer is a regular customer if said frequency has at least a predetermined value for a predetermined period of time, said determination block determining that said customer is a new customer if said frequency is less than said predetermined value for said predetermined period of time.

17. The customer information management system of claim 15, further comprising an extraction block extracting feature data from image data of a customer image-sensed, wherein said image information obtained

5 by said acquisition block is said feature data extracted by said extraction block.

18. The customer information management system of claim 15, further comprising an item data acquisition block obtaining data of an item purchased by a customer, wherein said recording block further records said data of said item obtained, said data being correlated with said image 5 information of said customer and said frequency.

19. The customer information management system of claim 15, further comprising an analysis block providing a data analysis based on data recorded in said recording block.

20. The customer information management system of claim 19, wherein said data analysis includes a data analysis about the item data for each of regular and new customers.

21. The customer information management system of claim 19, wherein if said recording block records data received from a plurality of 5 shops, said analysis block uses said data of said plurality of shops in said recording block to provide said data analysis to develop a strategy for each shop.

22. A customer information management method comprising the steps of:

10 recording image information of a customer of a shop and a frequency of said customer's appearance in said shop, said image information and said frequency being correlated with each other;

obtaining image information of a customer entering said shop; comparing said image information recorded in the step of recording and said image information obtained with each other to determine whether said image information match each other;

15 incrementing by one a frequency of appearance in said shop recorded

and corresponding to said image information recorded in the step of recording and found to match said image information obtained; and

adding to said recording block said image information obtained, if a comparison made in the step of comparing reveals that said image information recorded in the step of recording do not include image information matching said image information obtained.

23. A computer-readable recording medium having recorded therein a customer information management program causing a computer to execute the steps of:

recording image information of a customer of a shop and a frequency of said customer's appearance in said shop, said image information and said frequency being correlated with each other;

obtaining image information of a customer entering said shop;

comparing said image information recorded in the step of recording and said image information obtained with each other to determine whether said image information match each other;

incrementing by one a frequency of appearance in said shop recorded and corresponding to said image information recorded in the step of recording and found to match said image information obtained; and

adding to said recording block said image information obtained, if any.

comparison made in the step of comparing reveals that said image information recorded in the step of recording do not include image information matching said image information obtained.

24. A customer information management system comprising:

a camera image-sensing a customer in a shop to generate an image signal indicating an image of said customer;

a first processor receiving said image signal to determine an

attribute of said customer on the basis of said image;

a first input unit receiving information of an item purchased in the shop by said customer; and

a first storing section storing said information of said item received

10 and said attribute of said customer determined, said information and said attribute being correlated with each other.

25. The customer information management system of claim 24, wherein said camera is arranged at a predetermined position and image-senses said customer at a predetermined timing.

26. The customer information management system of claim 24, wherein said position is suitable for image-sensing a face of said customer.

27. The customer information management system of claim 24, wherein said attribute includes at least one of sex and age.

28. The customer information management system of claim 24, wherein said information of said item includes a name of said item.

29. The customer information management system of claim 24, wherein said camera, said first processor, said first input unit and said first storing section are installed inside said shop.

30. The customer information management system of claim 24, further comprising a second input unit receiving an attribute of said customer, wherein said first storing section further stores an attribute input via a second input unit and different from said attribute determined in said first processor.

5 31. The customer information management system of claim 24, further comprising a second processor providing a data analysis based on said information of said item recorded and said attribute of said customer, wherein said camera, said first processor, said first input unit and said first storing section are arranged inside said shop as an internal device and said second processor is arranged outside said shop and capable of communicating with said internal device.

32. The customer information management system of claim 24, wherein:

5 said camera includes a first camera image-sensing a customer having entered said shop and a second camera image-sensing a customer having purchased an item;

10 said first processor receives said image signal generated by said first camera and an image signal generated by said second camera, to determine an attribute of a customer having an image indicated by an image signal generated by said first camera but not by any image signal generated by said second camera; and

said first storing section further stores information indicating that said customer is a non-purchaser, said information being added to said attribute of said customer determined.

33. The customer information management system of claim 32, wherein said first camera is positioned in a vicinity of an entrance of said shop and said second camera is positioned in a vicinity of a cash desk of said shop.

34. The customer information management system of claim 24, wherein:

5 said camera includes a first camera image-sensing a customer having entered said shop and a second camera image-sensing a customer having purchased an item;

10 said first processor receives said image signal generated by said first camera and an image signal generated by said second camera, to determine an attribute of a customer having an image indicated by an image signal generated by said first camera but not by any image signal generated by said second camera; and

said first storing section further stores information indicating that said customer is a purchaser, said information being added to said attribute of said customer determined.

35. The customer information management system of claim 24, further comprising:

a second recording block recording an image signal representative of a customer of a shop and a frequency of said customer's appearance in said shop, said image signal representative of said customer and said frequency being correlated with each other; and

a third processor incrementing by one said frequency correlated with said image signal recorded in said second recording block and found to match said image signal generated by said camera.

10 36. The customer information management system of claim 35, wherein said third processor additionally records in said second recording block said image signal of said customer generated by said camera if said image signal of said customer generated by said camera is not present in said second recording block.